

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026881**Date Inspected:** 13-Dec-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

At the start of the shift this Quality Assurance Lead Inspector (QAI) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) Quality Control (QC) personnel. The observations and inspections were performed as noted below:

A). This Quality Assurance Lead Inspector (QALI) assigned the QA Inspectors to the following, but not limited to the work station(s) listed , to observe the welding and the QC inspection of the following:

Douglas Frey-OBG W11(Observation of the welding and QC inspection on the Lifting Lug Holes), OBG Field Splice W13/W14 (Observation of the welding and QC inspection of "D2" Plate) and OBG Field Splice W13/W14 (Observation of Repair Welding and QC Inspection of Plates "D1").

Joselito Lizardo-OBG E14 (Observed the Repair Welding and Inspection of the Ventilation Holes), OBG E11 (Observation of the welding on the Lifting Lug Holes) OBG E13/E14 Field Splice (Observation of Welding and QC inspection on "E2" Side Plate), FW Spencer, South Tower Shaft (Observation of the utility pipe welding) and MPT of Weld Repair on Jacking Saddle Frame.

Art Peterson-CCO: 179 Item 2-Continued observation of the welding and QC Inspection of the pipe sleeve at the bike path divider panels and installation of the pipe sleeve at the South Rail Divider.

William Clifford-OBG E14 (QA/UT, information only, of Ventilation Holes with QA UT Level III, Robert Mertz) and observed QC/UT at OBG Field Splices W12/W13, W13/W14 and E13/E14.

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## Quality Assurance Lead Inspector (QALI) Summary

This QA Lead Inspector (QALI) observed the QA Inspector's Douglas Frey, Art Peterson, Joselito Lizardo and William Clifford and Joselito Lizardo monitor the work performed by the QC inspectors at random intervals and also observed the QA Inspectors verify the welding parameters, the minimum preheat and the maximum interpass temperatures for compliance with the contract specifications. The QAI's utilized a Fluke 337 clamp meter to measure the electrical welding parameters, Tempil Heat Indicators and/or a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. At the conclusion of the shift, this QA Lead Inspector discussed and reviewed the work performed by the QAI's in regards to the various observations and the verifications of the WPS's, consumables, welding parameters, preheat and interpass temperatures. The QAI observations of the QC inspection and verification of the welding parameters performed on this date appeared to comply with the contract specifications and no issues were noted on this date.

For additional information see Summary of Conversation.

See QA daily Weld Inspection Reports (WIR) for additional information and details.

This QA Inspector continued the daily review of field inspection reports and update of the field document control tracking records regarding the Orthotropic Box Girders (OBG, Longitudinal and Transverse "A" Deck Stiffeners, Deck Access Holes and the Tower Shear plates).

### **Summary of Conversations:**

There were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift.

The QA inspector, William Clifford, indicated in conclusion of the investigative Ultrasonic Testing performed on the ventilation holes regarding the indications located in the vicinity of the closed rib, it appeared to be caused by mode conversion due to the joint geometry because the indications could not be confirmed and no repeatable signal could not be detected.

In regards to CCO: # 182, this QALI was informed by QC Lead Inspector, Bonifacio Daquinag, that the QC department would be performing the MT at the areas where the temporary attachments have been removed and ground flush from the top and side face of the counterweights located along the north side of the west bound box girders. He also indicated that this would happen at a later date. This was also confirmed by ABF Field Supervisor, Scott Smith. Mr. Smith also indicated that the removal of the paint would be performed when ABF personnel would start the welding on the cover plates of the counterweights.

In regards to the few that have been ground flush and not painted, the testing cannot be performed due to the absence of a safety line.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or

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remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Reyes,Danny	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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